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(54) **IMPLANTABLE MATERIAL AND A METHOD FOR THE PREPARATION THEREOF**

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(57) **ABSTRACT**

A method for the preparation of a regenerated silk fibroin solution comprises the steps of: treating silk or silk cocoons with an ionic reagent comprising an aqueous solution of monovalent cations and monovalent anions, the cations and anions having ionic radii of at least 1.05 Angstroms and a Jones-Dole B coefficient of between −0.001 and −0.05 at 25° C.; and subsequently degumming the treated silk or silk cocoons; or alternatively, degumming silk or silk cocoons; and subsequently treating the degummed silk or silk cocoons with an ionic reagent comprising an aqueous solution of monovalent cations and monovalent anions, the cations and anions having ionic radii of at least 1.05 Angstroms and a Jones-Dole B coefficient of between −0.001 and −0.05 at 25° C. The invention also extends to fibroin solution, a fibroin material and an implant useful for cartilage repair.